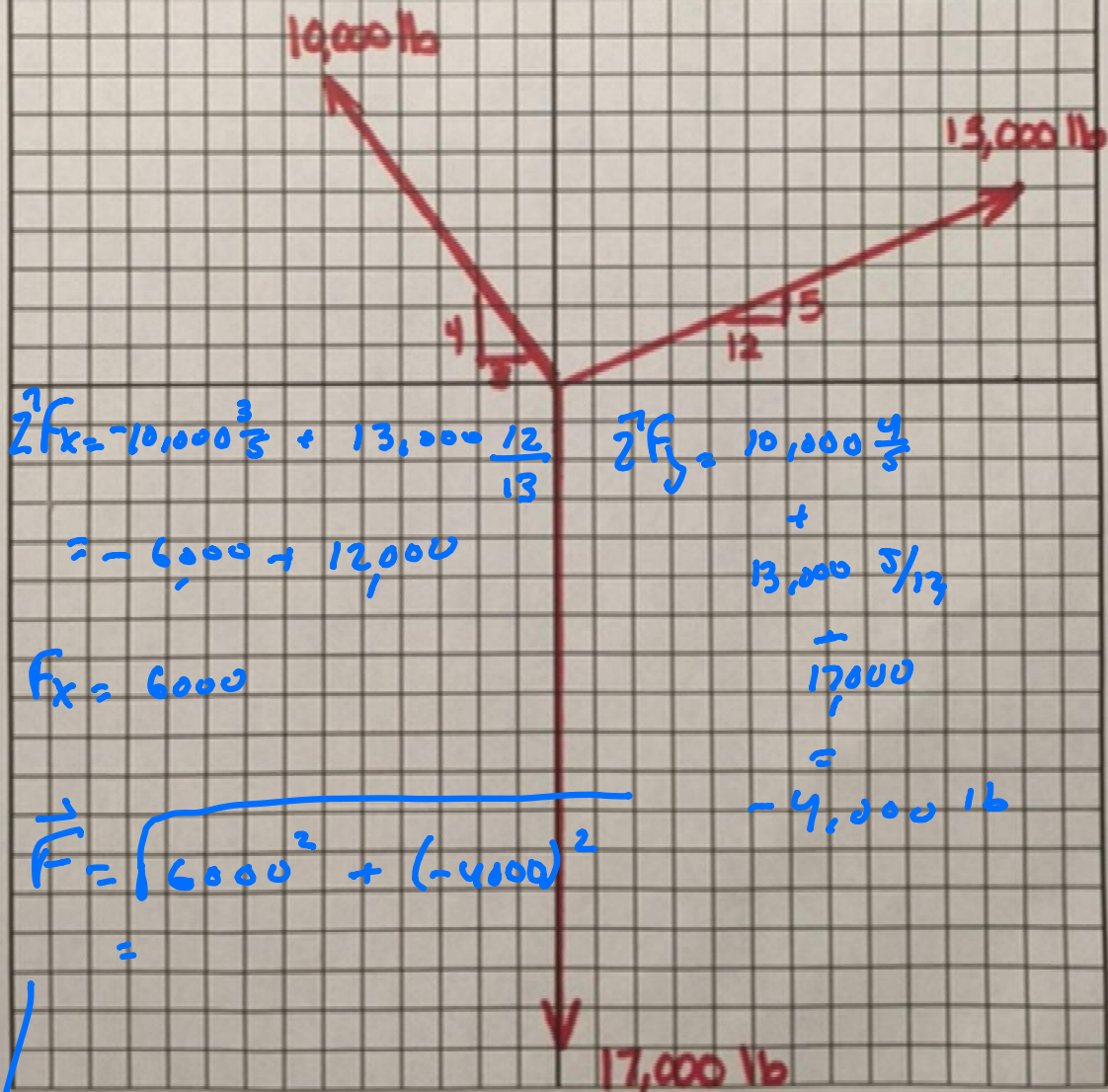
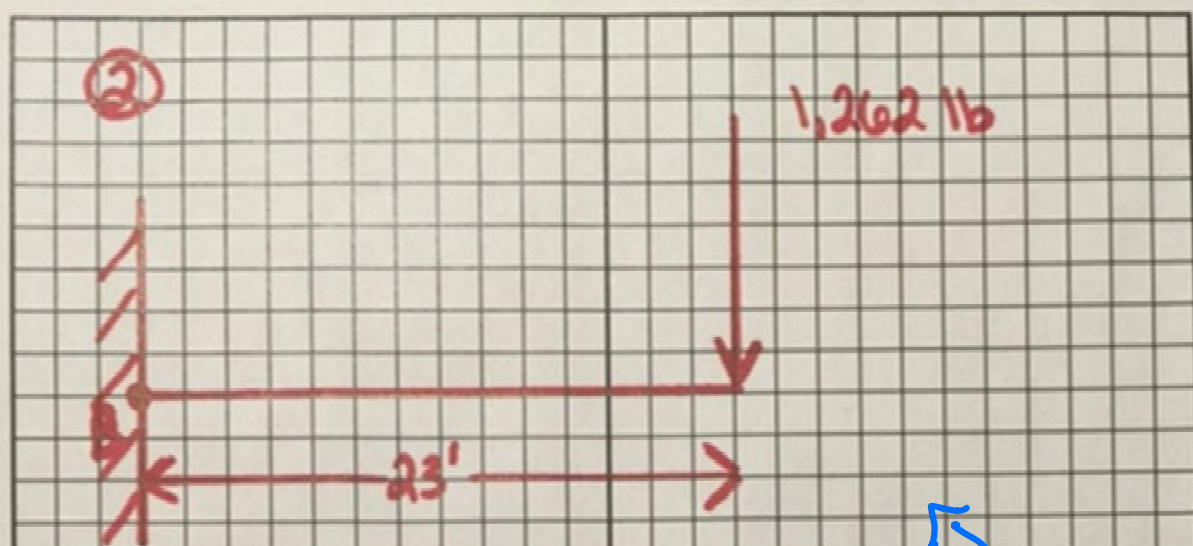


① break down the individual vectors into their component parts, solve for the resultant force and angle from x-axis using component method



→ $\vec{F} = 7211.102 \text{ lb}$

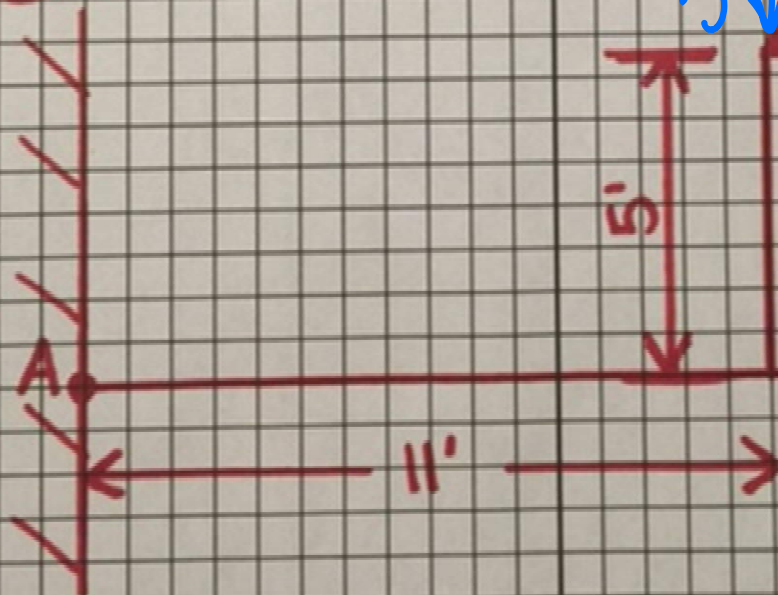
$$m_b = -29,026 \text{ [lb}\cdot\text{ft]}$$



$$m_b = 1,262 \text{ (lb)} \cdot (23')$$



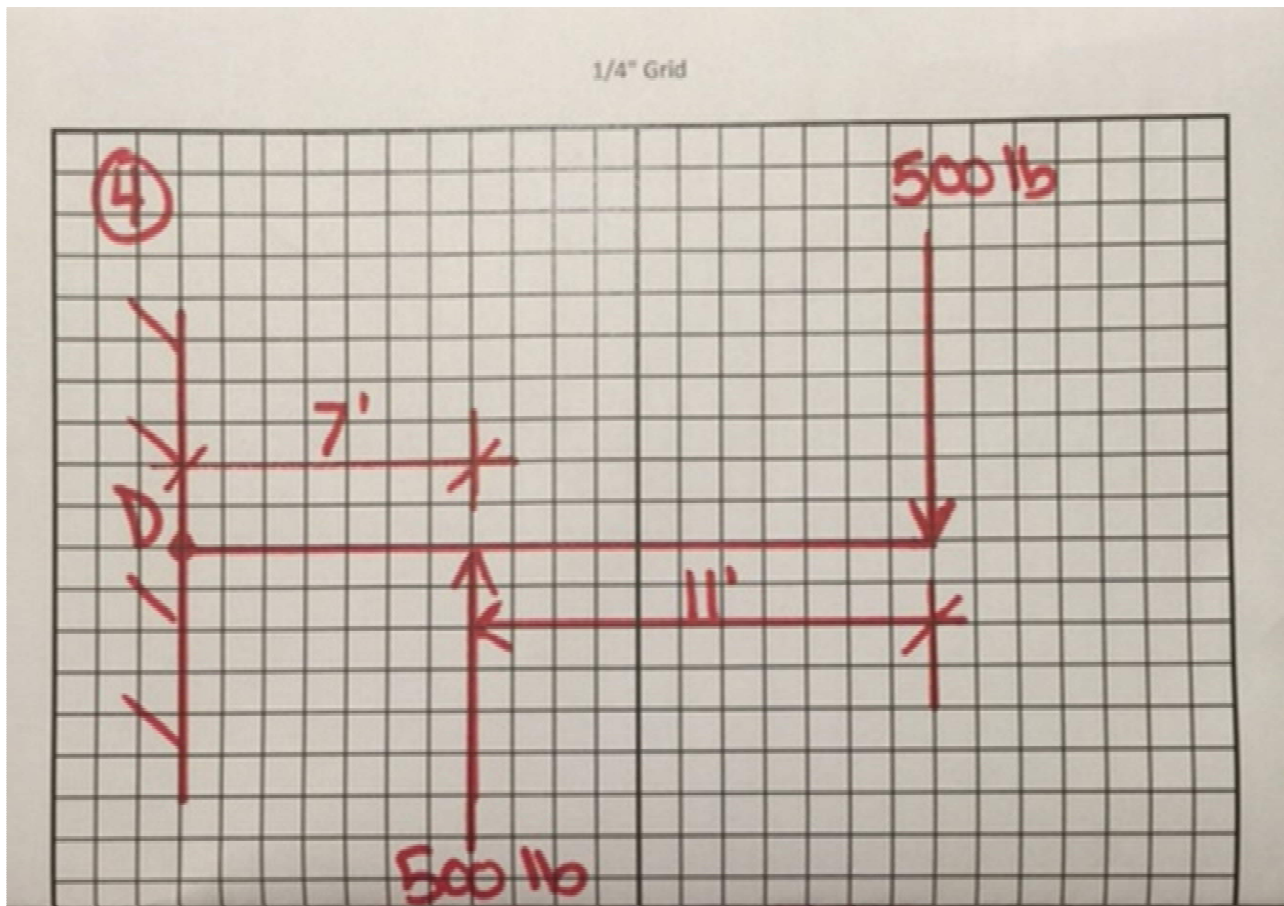
③



$$m_a = 6,220 \cos 45 (5) - 6,220 \sin 45 (11)$$

$$= 11,384.4 - 48,380.2 \text{ [lb}\cdot\text{ft]}$$

$$= -36,995.8 \text{ [lb}\cdot\text{ft]}$$



$$\uparrow M_d = 500(7) - 500(18)$$

$$= 3500 - 9000$$

$$= -5500 \text{ [lb}\cdot\text{ft]}$$

Simpson's Paradox can lead to a misleading interpretation of collected data, and cause an incorrect solution to the problem. This often occurs when there is a breakdown in statistical analysis. This makes it very important for people to understand how the numbers are produced and the details behind the study to help avoid the paradox.